

REMARKS

Claims 1, 2, and 4-28 are pending in the application.

Applicant has amended claims 1, 2, 4-7, 10-12, 15-17, and 20, has canceled claim 3, and has added new claims 21-28. These changes do not introduce any new matter.

Applicant respectfully requests reconsideration of the rejection of claims 1-20 under 35 U.S.C. § 112, second paragraph, as being indefinite. In response to this rejection, Applicant has amended certain of the claims to address the “means” clause and antecedent basis issues raised by the Examiner. Regarding the “means” clause issue, Applicant has amended independent claims 1 and 20 to recite “means for assisting expansion of the counterlung” and “means for assisting contraction of the counterlung.” Applicant submits that these “means” clauses now recite a function in accordance with 35 U.S.C. § 112, sixth paragraph. Applicant further submits that claims 1, 2, and 4-20, as amended herein, now satisfy the definiteness requirement of 35 U.S.C. § 112, second paragraph, and requests that the rejection of these claims thereunder be withdrawn.

Applicant respectfully requests reconsideration of the rejection of claims 1 and 2 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,076,267 to Pasternack. Applicant has amended independent claim 1 to include the features specified in claim 3 (and has canceled claim 3 in light of this change). As the Pasternack reference does not disclose the features specified in original claim 3, amended claim 1 is patentable under 35 U.S.C. § 102(b) over Pasternack. Claim 2, which depends from claim 1, is likewise patentable under 35 U.S.C. § 102(b) over Pasternack for at least the same reasons set forth regarding claim 1.

Applicant has added new claims 21-28. New independent claim 21 defines a breathing apparatus including a breathing circuit comprising a mouthpiece, at least one gas carrying conduit for connecting a compressed gas source to the breathing apparatus, and a counterlung. The counterlung includes a primary chamber, a secondary chamber, and means

for assisting expansion of the secondary chamber by communicating gas from a compressed gas source to the secondary chamber. New dependent claims 22-28 define additional features of the breathing apparatus. Applicant believes that new claims 21-28 are patentable under 35 U.S.C. §§ 102 and 103 over Pasternack.

In view of the foregoing, Applicant respectfully requests reconsideration and reexamination of claims 1, 2, and 4-20, as amended herein, as well as examination of claims 21-28, and submits that these claims are in condition for allowance. Accordingly, a notice of allowance is respectfully requested. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 749-6902. If any fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. MEWBP001).

Respectfully submitted,
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MARKED-UP VERSIONS OF AMENDED CLAIMS

1. (Amended) A breathing apparatus including a breathing circuit, the breathing circuit including:
 - a mouthpiece;
 - at least one gas carrying conduit;
 - a compressed gas source; and
 - a counterlung including a primary chamber and a secondary chamber, wherein inflation of the secondary chamber causes inflation of the primary chamber, wherein the compressed gas source is in communication with the counterlung via the breathing circuit, and wherein the counterlung includes means for assisting expansion of the counterlung [an expansion assisting means] and means for assisting contraction of the counterlung [a contraction assisting means].
2. (Amended) A breathing apparatus according to claim 1 further including a control to selectively activate one of the means for assisting expansion of the counterlung and the means for assisting contraction of the counterlung [expansion assisting means and the contraction assisting means].
4. (Amended) A breathing apparatus according to claim 1 [3] wherein the means for assisting expansion of the counterlung is [expansion assisting means are] associated with the secondary chamber.
5. (Amended) A breathing apparatus according to claim 4 wherein the means for assisting expansion of the counterlung [expansion assisting means] comprises a flow of the compressed gas source.
6. (Amended) A breathing apparatus according to claim 1 [3] wherein the means for assisting contraction of the counterlung [contraction assisting means] is associated with the primary chamber.
7. (Amended) A breathing apparatus according to claim 6 wherein the means for assisting contraction of the counterlung [contraction assisting means] is a spring which is biased towards contraction of the primary chamber.

10. (Amended) A breathing apparatus according to claim 1 [3] wherein the breathing circuit includes:

- a primary breathing circuit, and
- a secondary breathing circuit,

wherein the primary breathing circuit connects the primary [gas] chamber to the mouthpiece and the secondary breathing circuit connects the secondary chamber to the mouthpiece.

11. (Amended) A breathing apparatus according to claim 10 wherein the mouthpiece includes:

- a pressure operated mouthpiece switch;
- a first valve;
- a mouthpiece chamber; and
- a mouthpiece outlet,

the switch being operable to respond to a reduction in pressure to operate the valve to allow gas from the primary [gas] chamber, via the primary breathing circuit, and gas from the secondary [gas] chamber, via the secondary breathing circuit, to enter the mouthpiece chamber, the mouthpiece chamber being in communication with the mouthpiece outlet.

12. (Amended) A breathing apparatus according to claim 10 wherein the mouthpiece includes:

- a pressure operated mouthpiece switch;
- a first valve;
- a second valve;
- a mouthpiece chamber; and
- a mouthpiece outlet,

the switch being operable to respond to an increase in pressure to operate the second valve to allow compressed gas from the compressed gas source to enter the secondary [gas] chamber via the secondary breathing circuit.

15. (Amended) A breathing apparatus according to claim 1 [3] wherein the mouthpiece includes an exhaust valve to exhaust, in use, any excess gas that a user continues to exhale after the primary [gas] chamber is fully expanded.

16. (Amended) A breathing apparatus according to claim 10 wherein the secondary [secondly] breathing circuit includes:

a first conduit for carrying the compressed gas to the secondary [gas] chamber for inflation thereof; and

a second conduit for connecting the secondary [gas] chamber to the mouthpiece chamber for carrying gas from the secondary [gas] chamber to the mouthpiece.

17. (Amended) A breathing apparatus according to claim 16, further including a top-up valve, the compressed gas source being connected to the second[ary] conduit of the secondary breathing circuit via the top-up valve, the top-up valve being operable in the event that the primary chamber is completely collapsed.

20. (Amended) A breathing apparatus including a breathing circuit, the breathing circuit including:

a mouthpiece;

at least one gas carrying conduit;

a compressed gas source;

a counterlung,

wherein the compressed gas source is in communication with the counterlung via the breathing circuit and wherein the counterlung includes:

a primary chamber;

a secondary chamber;

means for assisting expansion of the counterlung [an expansion assisting means] associated with the secondary chamber;

means for assisting contraction of the counterlung [a contraction assisting means] which is a spring which is biased towards contraction of the primary chamber; wherein the secondary chamber is formed within the primary chamber and wherein inflation of the secondary chamber causes inflation of the primary chamber, the breathing circuit further including:

a primary breathing circuit;

a secondary breathing circuit; and

a carbon dioxide scrubber,

wherein the primary breathing circuit connects the primary [gas] chamber to the mouthpiece and the secondary breathing circuit connects the secondary chamber to the mouthpiece, and wherein the carbon dioxide scrubber is included in the primary breathing circuit.